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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/038,230	03/11/98	KUYANAGI	1217-980347

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IN11/0406

METZMAIER, D

1721

EXAMINER

ART UNIT

PAPER NUMBER

01/06/99  
DATE MAILED:

4

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/038,230**

Applicant(s)  
**Koyanagi et al.**

Examiner  
**Daniel S. Metzmaier**

Group Art Unit  
**1721**



☒ Responsive to communication(s) filed on Mar 11, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-4 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-4 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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### DETAILED ACTION

Claims 1-4 are pending in the instant application. The preliminary amendment and priority papers filed March 11, 1998 have been entered as Paper No. 2 and 3, respectively.

#### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoneda et al., 5,236,622. Yoneda (EXAMPLE 2-(9)) discloses the claimed inorganic compound sols. Yoneda employs phenyltrimethoxysilane which inherently reads on the claim compounds having a molecular polarizability of from  $2 \times 10^{-40}$  to  $850 \times 10^{-40} \text{ C}^2\text{m}^2\text{J}^{-1}$ . Attention is directed to the related vinyltrimethoxysilane set forth in the instant Table I, page 22. The ethylene glycol employed by Yoneda would inherently have the claimed dielectric constant claimed in claim 4. Attention is directed to instant Table I, page 23.

4. Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Swofford, 4,822,828, in view of Johnson, 3,909,278. Swofford (EXAMPLE IV and V) discloses the

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claimed compositions. The properties of the organic compounds and the dispersion medium are defined in applicants disclosure to include vinyltrimethoxysilanes and water, respectively.

Attention is directed to Tables 1 and 2 at pages 22 to 24 of the instant specification.

Johnson (columns 3 and 4, Table 1) is cited to show the NALCO 1034A employed in the Swofford examples is an aqueous colloidal dispersion of 34.5% SiO<sub>2</sub> having an acidic pH of 3.1.

5. Claims 1 and 3-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Yajima et al., 5,366,545. Yajima (example 1) discloses compositions claimed. The properties of the organic compound and the dispersion medium would have been inherent and/or are defined in applicants disclosure to include  $\gamma$ -glycidoxypropyltrimethoxysilane. It is noted methanol has a dielectric constant of about 32 and water is 77.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

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and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda et al., 5,236,622. Yoneda (abstract and EXAMPLE 2-(9)) discloses inorganic compound sols.

To the extent Yoneda differs in the particular organic compound exhibiting a molecular polarizability of from  $2 \times 10^{-40}$  to  $850 \times 10^{-40} \text{ C}^2\text{m}^2\text{J}^{-1}$ , Yoneda (column 7, line 65 to column 8, line 28) teaches coupling agent including 3-glycidoxypropyltrimethoxysilane and vinyltriethoxysilane. Table 1 of the instant specification employs  $\gamma$ -glycidoxypropyltrimethoxysilane and vinyltrimethoxysilane as having a molecular polarizability within the claimed range.

It would have been obvious to the ordinary skilled artisan at the time of applicants invention to employ the related coupling compounds disclosed in the Yoneda reference as obvious functional equivalents taught in the Yoneda reference for the exemplified phenyltrimethoxysilane.

Claim 3 differ from the Yoneda reference examples in the inorganic particulate employed in the dispersion as a composite oxide composed of silica and at least one oxide other than silica.

Yoneda (column 5, lines 57-68) teaches composite oxides including composites of silica and other metal oxides including aluminum among others. It would have been obvious to the ordinary skilled artisan at the time of applicants invention to employ an inorganic metal oxide composite in the compositions of the Yoneda reference as an obvious inorganic particulate taught

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in the Yoneda reference for a particular desire end use and/or property such as slipperiness and/or pigmentation.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Metzmaier whose telephone number is (703) 308-0451. The examiner can normally be reached on Monday through Friday from nine to five-thirty.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharon A. Gibson, can be reached at (703)308-4552.

Official Papers may be submitted to **Group 1700** by facsimile transmission at (703)305-5408 and Official After Final facsimile transmissions may be submitted to **Group 1700** by facsimile transmission at (703)305-3599 in accordance with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989).

Any inquiry of a general nature or relating to the status of this application should be directed to the **Group 1700** receptionist whose telephone number is (703) 308-0661.

DSM  
March 28, 1999

*Richard D. Lovering*  
RICHARD D. LOVERING  
PRIMARY EXAMINER  
GROUP ~~1200~~ 1700